National Vegetation Classification System (NVCS) Hierarchy Revision Process in Alaska

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LANDFIRE Webinar March 16th, 2011

Status of the NVCS - 2004

Federal Geographic Data Committee

Vegetation Subcommittee

FGDC Vegetation Classification and Information Standards

June 3, 1996

Federal Geographic Data Committee Secretariat USGS MS 590 National Center 12201 Sunrise Valley Drive Reston, VA 22092



International Classification of Ecological Communities:



TERRESTRIAL VEGETATION of the UNITED STATES



VOLUME I



The National Vegetation Classification System: Development, Status, and Applications









Structure of the NVCS

Class

<u>Woodland</u>

Subclass

Evergreen Woodland

Formation Group

Temperate or Subpolar needle-

leaved...

Formation Subgroup

Natural vs. Cultural

physiognomic levels

Formation

Rounded-crowned...

floristic levels

Alliance

Pinus ponderosa Woodland Alliance

Association

Pinus ponderosa / Arctostaphylos patula Woodland

(Grossman et al. 1998; UNESCO 1973)

Mapping the NVCS

Class (7)

Woodland

Subclass (22)

<u>Evergreen</u> Woodland

Formation Group (63)

Temperate or Subpolar needleleaved...

Formation Subgroup

Natural vs. Cultural

physiognomic levels Formation (218)

Rounded-crowned...

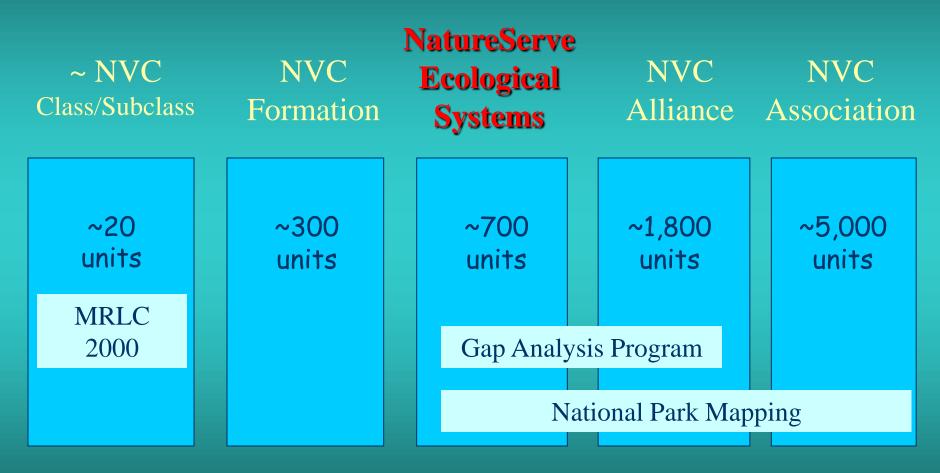
1

floristic levels Alliance (1571) Pinus ponderosa Woodland Alliance

Association (4149)

Pinus ponderosa / Arctostaphylos patula Woodland

Thematic Target Legend Developed with *NatureServe*



(Natural/Semi-natural types)

Hierarchy Revisions: H-6 Five Major Recommendations.

- 1. Reorganize physiognomic (formation) levels (Levels 1-3) to reflect ecological criteria.
- 2. Separate cultural vegetation from natural / semi-natural vegetation as a higher "categorical" level.
- 3. Redefine wetland formations based on broad vegetation criteria.
- 4. Define the mid-level units (Levels 4 6) based on both floristic and physiognomic criteria.
- 5. Separate semi-natural vegetation at midlevels.

H-7

New upper levels

New mid levels

Hierarchy Revisions Proposed Structure - draft

	FGDC 1997 – standard	Revised Hierarchy
1	CLASS	CLASS
2	SUBCLASS	SUBCLASS
3	FORMATION GROUP	FORMATION
4	FORMATION SUBGROUP	DIVISION
5	FORMATION	MACROGROUP
6	ALLIANCE	GROUP
7	ASSOCIATION	ALLIANCE
8		ASSOCIATION

RECOMMENDED REVISION – 4

Define the mid-level units (Levels 4 - 6) based on both floristic and physiognomic criteria.

	FGDC 1997 – standard	Revised Hierarchy
1	CLASS	CLASS
2	SUBCLASS	SUBCLASS
3	FORMATION GROUP	FORMATION
4	FORMATION SUBGROUP	DIVISION
5	FORMATION	MACROGROUP
6	ALLIANCE	GROUP
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By relying on a combination of floristic and physiognomic criteria for mid-level hierarchy units we provide the much-needed bridge between world-scale formation units and local-regional scale floristic units. Many vegetation ecologists have developed and use these kinds of mid-level units for assessing broad vegetation patterns

Status

- 1. Revised NVC Standard.
 - * Officially released Feb. 2008

http://www.fgdc.gov/standards/projects/FGDC-standards-projects/vegetation/NVCS_V2_FINAL_2008-02.pdf

- 2. Implementation Plan.
 - 1. Core Funded Implementation (FGDC / USFS)
 - Core activities (maintain content and data)
 - Screening process for peer review of lower levels
 - 2. User Funded Implementation (LANDFIRE/ National Park Service).
 - Defining types for new mid-levels
 - Screening process for mid and upper level types.

LANDFIRE – NPS Hierarchy Revision Workshops

- Western Workshop in Boulder, CO Nov. 2008
 - Western Forests, Shrublands, and Grasslands only
 - Not including Great Plains
 - Not Including Wetlands or Riparian
- Eastern Workshop in Raleigh-Durham, NC Feb, 2009
 - Eastern Forests
 - Eastern Grasslands & Shrublands east of the Great Plains (glades, alvars, barrens, etcs).
 - Eastern Wetlands

H-11

Mid-Level Development of Revised U.S. National Vegetation Classification

A Landfire Funded Project



Alaska NVC Workshop

Jan 11-13, 2011, Anchorage

OUTCOMES OF THE WORKSHOP

- Understand the NVC approach, and IVC/CNVC collaborations
- Solid list of Groups and Macrogroups
- NatureServe staff write up Group descriptions, with support from Alaska HP.
- Plan for Peer review of Group Descriptions

USNVC Hierarchy: Alaska Example

Revised Hierarchy	Example
Upper	
Level 1 – Class	Mesomorphic Tree Vegetation
Level 2 – Subclass	Boreal Forest
Level 3 - Formation	Lowland-Montane Boreal Forest
Mid	
Level 4 – Division	North American Boreal Forest
Level 5 – Macrogroup	Western North American Boreal Conifer and Hardwood Forest
Level 6 – Group	Alaskan Mesic-Moist Black Spruce Forest Group
Lower	
Level 7 – Alliance	Picea mariana Saturated Forest Alliance
Level 8 – Association	Picea mariana / Ledum groenlandicum / Carex trisperma / Sphagnum spp. Forest